



immersive media

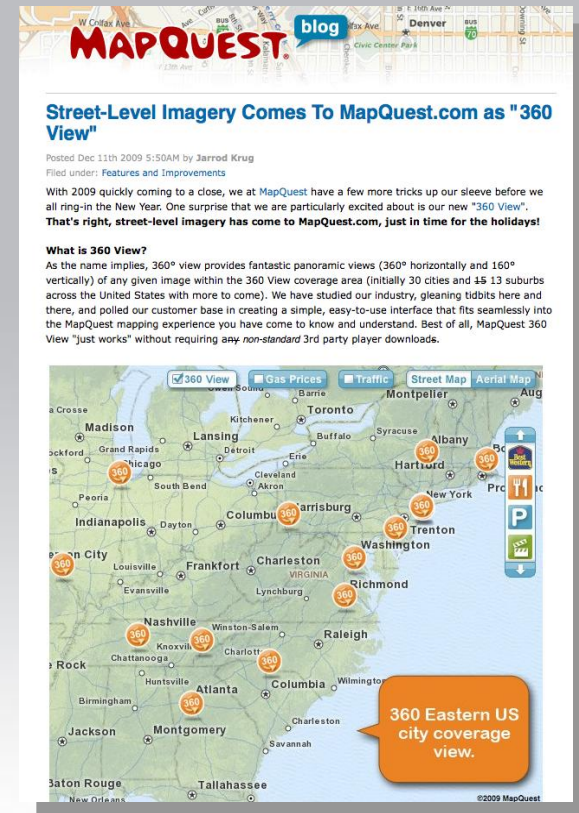


2006/2007 Inventors of Google *StreetView*



Immersive Media, a Canadian company that specializes in the fast-growing world of “spherical video”—aka mapping the world for Google and beyond.

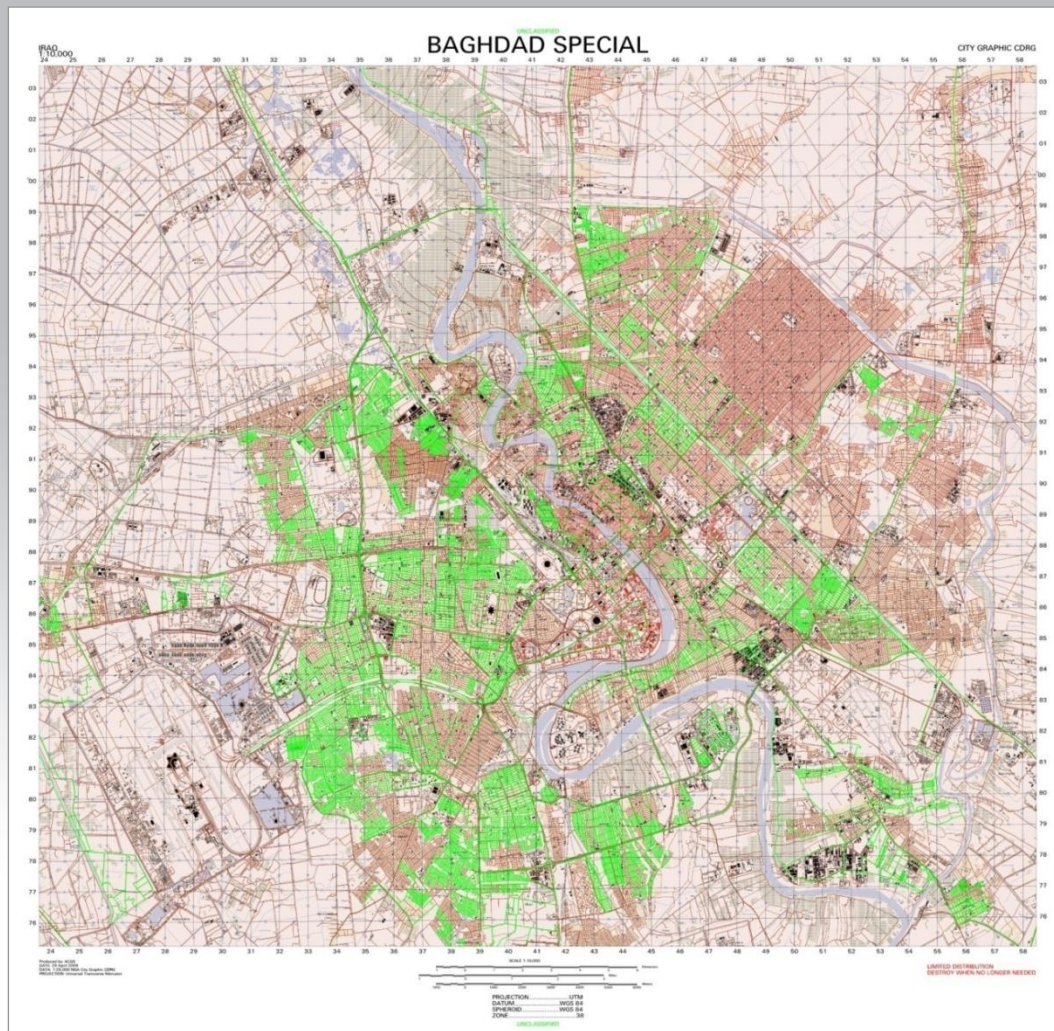
Riding Shotgun with Google Street View
By Wayne Ma
Published on: November 19, 2007
Popular Mechanics



2008 FOUNDERS OF MAPQUEST 360VIEW



2009 US ARMY *PATROLVIEW*





Who uses 360 video?





IM PATENTED WORKFLOW

18 Patents; & 7 Patents Pending in 49 Countries



Why use Georeferenced 360 Video?

- Eliminate added site visits
- Bring stake holders together from anywhere in the world
- Decrease timelines in the approval process
- Familiarize engineers, maintenance teams and first responders prior to arrival in remote or hazardous locations





Imagine being able to click onto any project map and pull up a high resolution 360 video of your project and assets and view every direction.

Collection Process

Immersive Media's production services are broken down into a 4 stage process

- Pre-collection Planning
- Collection/Capture
- Post Processing
- Delivery and Integration



Pre-Collection Planning

Collections are planned before hand and will be discussed in the initial scope of the project. This helps the collection run smoothly and greatly reduces the post processing time.

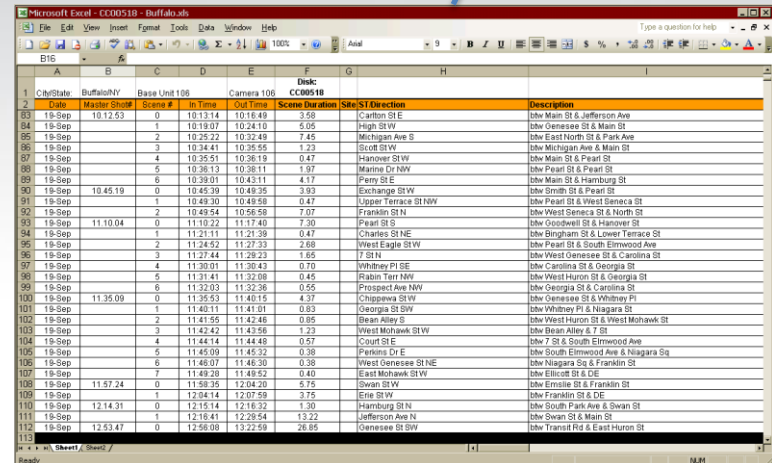
Collection plans can follow a general guideline (main roads, exchanges, points of interest), or be very specific.

Specific collections will be identified beforehand using street maps then each shot will be planned for efficient collection and to generate shots of sufficient length.

Restricted zones, if identified, will be avoided

Collection Log Sheets

A custom made template is used in order to plan and track multiple shots throughout the collection.



1	City/State	Buffalo/NY	Base Unit 106	Camera 106	Desk: CC00510		
2	Date	Master Shot#	Scene #	In Time	Out Time	Scene Duration	Site/ST Direction
83	19-Sep	10.12.53	0	10.13.14	10.16.49	3.58	Carlton St E
84	19-Sep		1	10.19.07	10.24.10	5.05	btw Genesee St & Main St
85	19-Sep		2	10.25.22	10.32.49	7.45	btw East North St & Park Ave
86	19-Sep		3	10.34.41	10.35.55	1.23	Scott St W
87	19-Sep		4	10.35.51	10.36.19	0.47	btw Main St & Pearl St
88	19-Sep		5	10.36.13	10.38.11	1.97	Marine Dr NW
89	19-Sep		6	10.39.01	10.43.11	4.17	Perry St E
90	19-Sep	10.45.19	0	10.45.39	10.49.35	3.93	Exchange St W
91	19-Sep		1	10.49.30	10.49.58	0.47	Upper Terrace St NW
92	19-Sep		2	10.49.54	10.56.58	7.07	Franklin St N
93	19-Sep		0	11.02.22	11.17.40	7.30	Pearl St S
94	19-Sep	11.10.04	1	11.21.11	11.21.39	0.47	btw Bingham St & Lower Terrace St
95	19-Sep		2	11.24.52	11.27.33	2.69	West Eagle St W
96	19-Sep		3	11.27.44	11.29.23	1.65	17 St N
97	19-Sep		4	11.30.01	11.30.43	0.70	btw Carolina St & Georgia St
98	19-Sep		5	11.31.41	11.32.08	0.45	Rabin Terr NW
99	19-Sep		6	11.32.03	11.32.36	0.55	Prospect Ave NW
100	19-Sep	11.35.09	0	11.35.53	11.40.15	4.37	Chippewa St W
101	19-Sep		1	11.40.11	11.41.01	0.83	Georgia St SW
102	19-Sep		2	11.41.55	11.42.46	0.85	Bean Alley St
103	19-Sep		3	11.42.42	11.43.66	1.23	West Mohawk St W
104	19-Sep		4	11.44.14	11.44.48	0.57	Court St E
105	19-Sep		5	11.45.09	11.45.32	0.38	Peterson Dr E
106	19-Sep		6	11.46.07	11.46.30	0.39	West Genesee St NE
107	19-Sep		7	11.49.39	11.49.52	0.40	East Mohawk St W
108	19-Sep	11.57.24	0	11.58.35	12.04.20	5.75	Swan St W
109	19-Sep		1	12.04.14	12.07.59	3.75	btw Franklin St & DE
110	19-Sep	12.14.31	0	12.15.14	12.16.32	1.30	Hamburg St N
111	19-Sep		1	12.16.41	12.20.54	4.22	Jefferson Ave N
112	19-Sep	12.53.47	0	12.56.03	13.22.59	26.55	Genesee St SW

Street View Collection Method



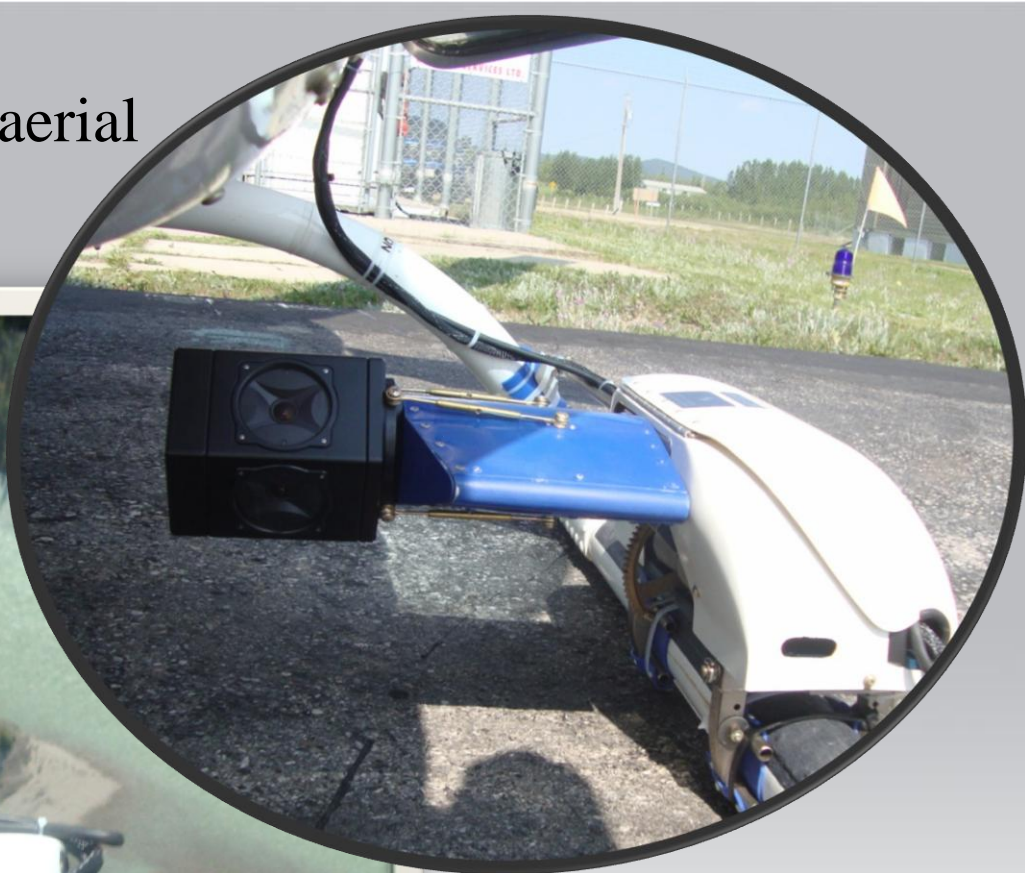
Optional Quattro Camera System



Additional Methods of Capture



FAA Approved Heli Mounts for aerial georeferenced 360 video capture



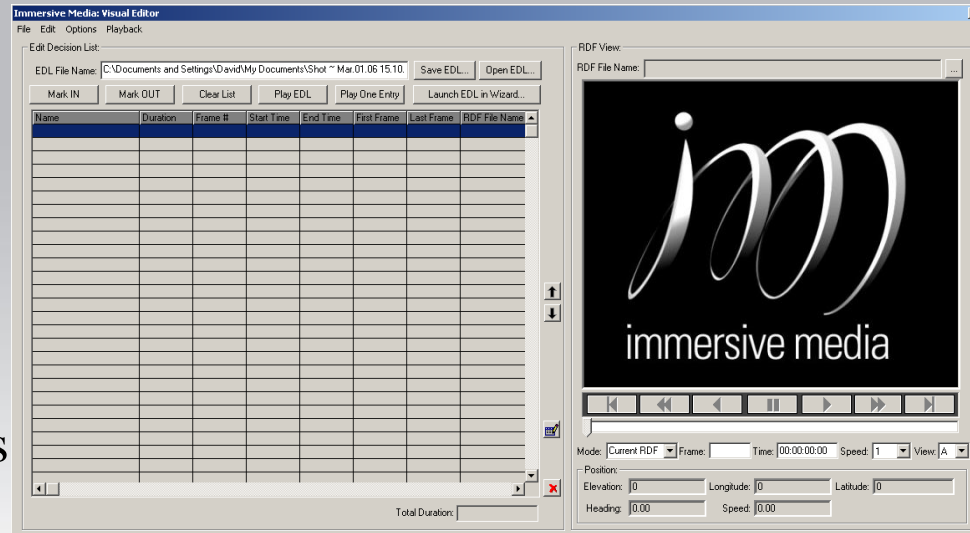
Approved for Bell 206 series, Bell 407 as well as Robinson R44 and R44II

Post-Collection Editing

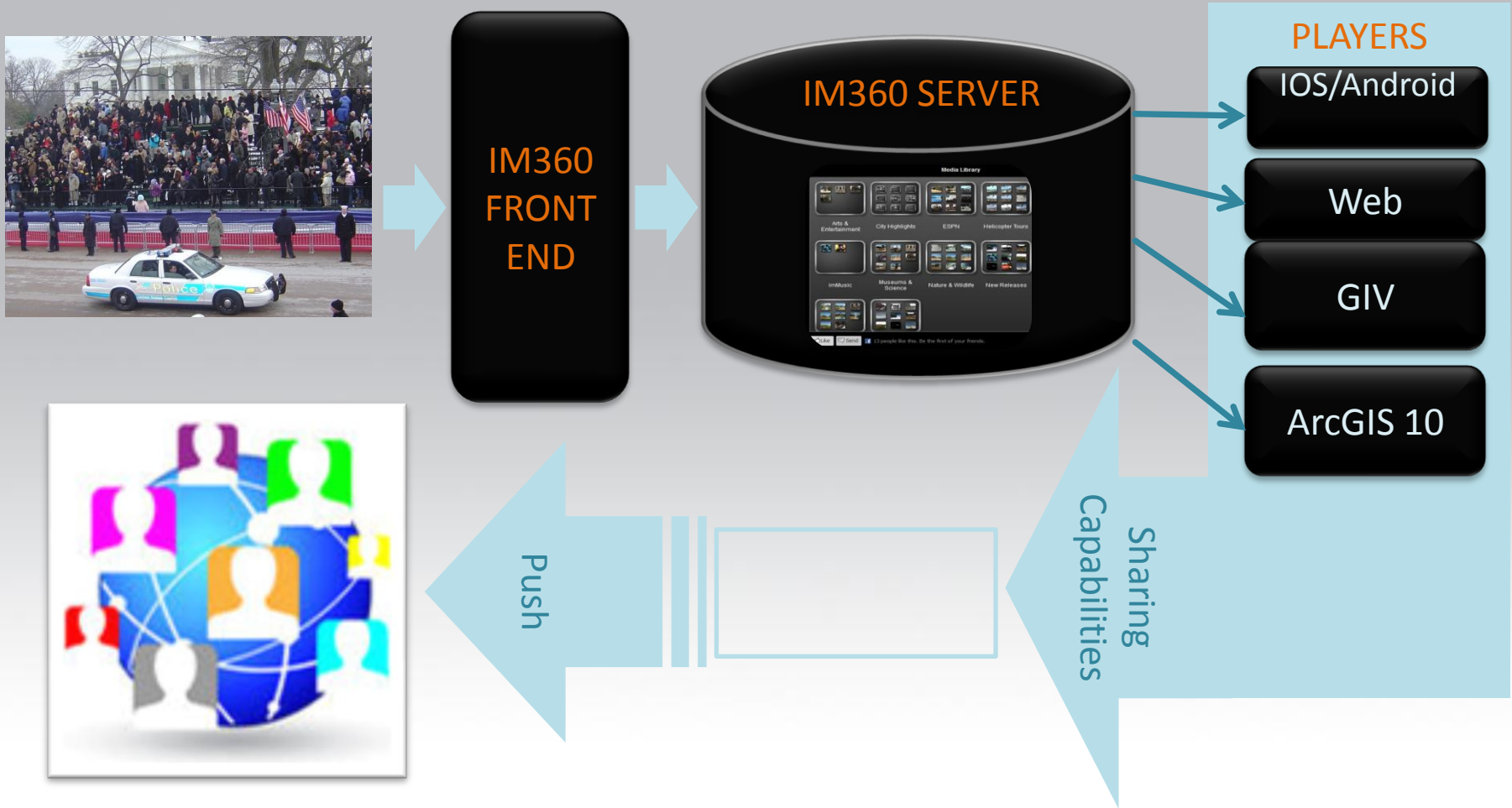
Edit Decision List - EDL

An EDL can be imported from the edits made on the base unit, or it can be created using the visual editor in the Immersive Media Post Production Suite.

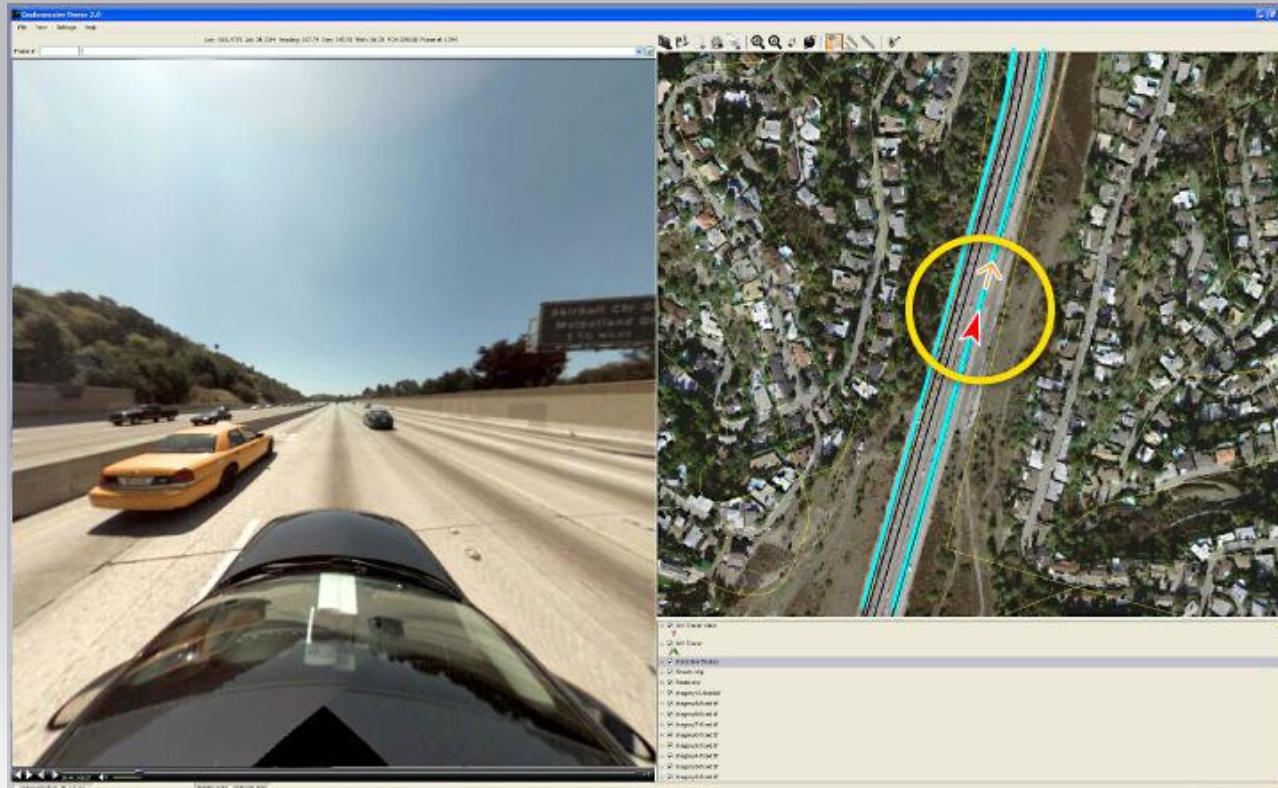
This is done by scrolling through the Raw Data Files (RDF) and choosing where you want to start and end your scenes. Collected video is edited down to the specific videos needed to integrate into IM Players.



IM DISTRIBUTION PLATFORM



GeoImmersive Viewer

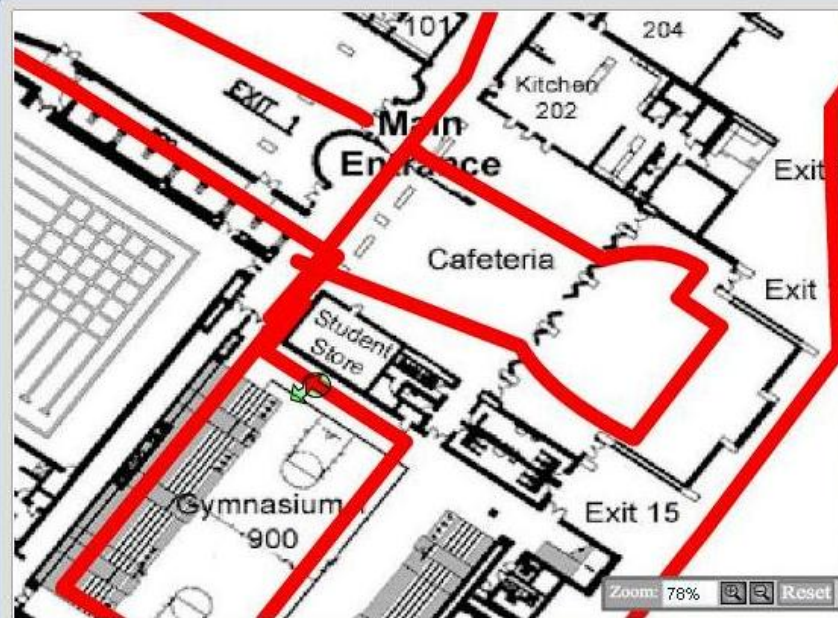


The IM GeoImmersive Viewer is a three-paneled window that simultaneously displays interactive immersive videos and an associated map displaying layers of overlays. Typical layers permit showing the route where the imagery was captured, imported asset shape files, and a full graphics layer. Built in tools for creating graphics and importing video make it an all-in-one standalone solution that permits sharing of geospatial information across an organization and with subcontractors, zoning officials, and the public.

IM OnScene™

Images can be merged with floorplans, maps, blueprints

IM OnScene



Click and drag for 360° view



Select specific area of interest in a blueprint to retrieve 360 video of specified areas

Basemap360 GIS Server

The screenshot displays the Basemap360 GIS Server interface within a Firefox browser window. The browser's address bar shows the URL: `imc-test.s3.amazonaws.com/mediaStoreAdmin/index.html?AWSAccessKeyId=AKIAI3HAIJAHARFHW4BLQ&Expires=1593718799&Signature=Qm13sbhW6Bn8O6aj8g8NIKFYkrl%3d`. The interface is divided into several sections:

- Top Navigation:** Includes tabs for "customers", "videos", "tests", and "config". Below these are "properties", "nav", "nodes", and "tag" buttons.
- Left Panel:** Contains a list of image nodes, all named "images/im_skin/roadMarkNormal.png". Below this is a table of properties for the selected node.
- Table Properties:**

Type	im.player.scene.ImageNode
Longitude	-77.0446211645045
Latitude	38.8712504325464
Altitude	16.15
Northing Deviation	0
Easting Deviation	0
Altitude Deviation	0
Max Deviation	0
Scale	0.5
Yaw	0
Pitch	0
Roll	0
Visible	True
JavascriptClick	
NoramlUrl	media/imageNodes/greenCircleNormal.png
HoverUrl	media/imageNodes/greenCircleHover.png

Below the table is a "Clear List" button.

- Map View:** The top part of the map shows an aerial view of a road intersection with several small orange markers. The bottom part shows a street-level view of a road with a yellow line segment and a green circle, indicating a measurement of 6.62m. A blue callout box with the text "Measurement and Tagging" is overlaid on the street-level view.
- Bottom Panel:** A debug console showing various events, including "adding key: 162", "OnGeoNodeAdded", "added external node: 164", and "OnViewHeadingChange".

The Windows taskbar at the bottom shows the system clock as 7:09 PM on 6/25/2012.

Immersive Media

ID	683
Legal ID	4080
Address	887
Street	LEE ST
Apt ID	0
Dir Name	LEEST_887
Latitude	+49d 01m 05.39s N
Longitude	-122d 47m 16.50s W
Elevation	1.50

Immersive Media Corp Geolmmersive Parcel Data
City of White Rock, B.C. Current Movie: LEE ST

867 LEE ST 873 LEE ST 877 LEE ST 883 LEE ST **887 LEE ST** 891 LEE ST

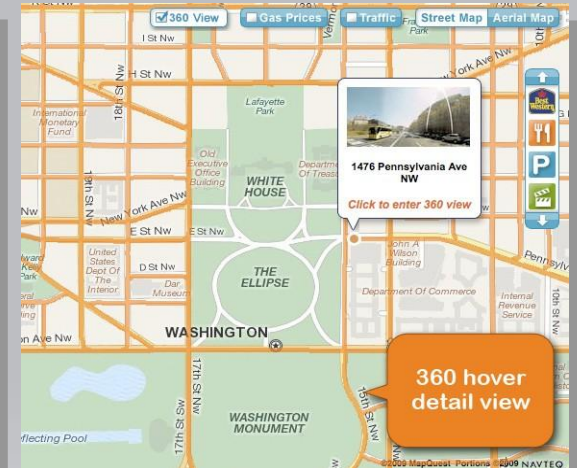
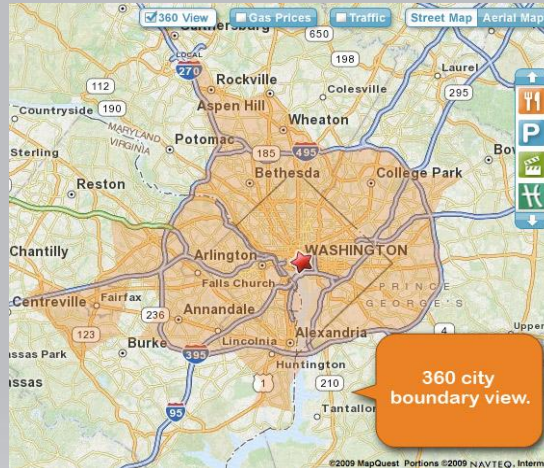
Geodatabase Integration

945	949	945	949
942	943	942	943
938	939	938	939
932	935	932	935
928	929	926	933
922	923	920	923
918	919	920	919
912	913	912	913
15671	15679	15707	15725

890	891	15716	15726
887	887	886	887
882	883	882	883
877	877	875	877
872	873	872	873
866	867	866	867
862	863	862	861
858	859	858	859
852	853	852	853
848	849	848	849
842	843	842	843
838	839	838	839
832	833	832	833
828	829	828	829
820			



IM FLASH SDK



IM360™ SDK



Mobile

iPhone/iPad iOS SDK
Android SDK

The Impact...

- Means easy access, anywhere
- Provides users with ultimate interactivity – challenging conventional viewing
- Empowers viewers with data-rich, visual location intelligence
- Viewer independence and control
- Improves communication and collaboration across an organization
- Reduces multiple field trips, project costs and timelines



QUESTIONS?

